

The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

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Refno	Cover	Func	Invert	Size x	Size y	Shape	Matl	Length	Grad
9505	73.33	SW	72.29	225			VC	44.14748	1 in 57
9504	74.01	CO	71.58	300			VC	43.73785	1 in 35
6803	69.88	SW	66.88	375			VC	19.20937	1 in 40
8802	73.51	CO	70.14	225			VC	42.20019	
0612	75.31	SW	72.29	525			CO	22.8419	1 in 152
6002	72.46	CO	0	380			BR	12.52492	
9510	73.31	CO	0	225			VC	7.071068	
9603		CO	0	225			VC	28.54302	
7512		CO		150			VC	10.47293	
9710	75.36	SW	73.91	300			VC	43.41559	
6813		CO		150			VC	46.94242	
8801	72.88	CO	69.46	225			VC	59.5399	1 in 56
7802	71.7	CO	68.26	300			VC	16	1 in 107
7622		CO		150			VC	10.7505	
5809		SW		375			CO	74.02702	
8601	72.4	CO	71.01	300			VC	57.27129	
0402	75.14	CO	73.14	300			VC	22.56103	
8405	72.38	CO	68.55	600			CO	47.07441	
8605		CO	0	225			VC	12.24021	
7901		CO	0	300			VC	64.49747	
8509	72.79	SW	71.77	225			VC	89.05054	1 in 107
8505	72.26	CO	71.04	225			VC	17.26288	
6702	69.09	CO	66.94	225			VC	92.19698	1 in 111
7803	71.88	CO	68.11	300			VC	13.34166	1 in 167
7804		CO		150			VC	17.38293	
0709	75.47	CO	73.62	225			VC	7.211102	
7704	72.14	SW	69.41	600			BR	10.44031	1 in 104
9811		CO		150			VC	8.280154	
5000	67.6	SW	63.75	750			CO	83.19255	1 in 132
5000	67.6	SW	63.75	750			CO	83.19255	1 in 132
5000	67.6	SW	63.75	750			CO	83.19255	1 in 132
7621		CO		150			VC	12.37359	
6806	70.71	CO	69.02	225			VC	77.62504	1 in 100
0402	75.14	CO	0	300			VC	23.34524	
7904	75.02	SW	72.89	300			CO	42.04334	1 in 263
6602	68.96	SW	66.69	450			CO	92.5743	1 in 120
9840		CO		150			VC	8.025006	
5510	67.4	FO	65.01	225			VC	32.01562	1 in 100
0703	75.68	CO	74.06	300			VC	22.2036	
9804	75.39	SW	74.15	300			VC	42.54409	
7704	72.14	SW	69.39	630			BR	60.20797	
0807	76.52	CO	0	225			VC	54.40588	
5603	67.62	SW	65.9	450			CO	28.6531	1 in 61
9802	75.41	CO	74.19	225			VC	64.4748	
7810	72.08	SW	68.37	630			BR	43.68066	1 in 128
5404	68.94	SW	66.4	300			VC	10.04888	1 in 56
5404	68.94	SW	66.4	300			VC	10.04888	1 in 56
9706	74.88	CO	72.59	225			VC	15.52417	1 in 5
6504	69.3	CO	66.69	225			VC	14.86907	1 in 40
8003	72.61	CO	70.91	225			VC	71.5891	1 in 23
7814		CO		150			VC	19.09185	
6003	72.44	CO	68.82	380			BR	27.24504	1 in 76
4604	66.41	SW	63.89	950			BR	53.00943	1 in 83
4604	66.41	SW	63.89	950			BR	53.00943	1 in 83
5705		CO		150			VC	36.1128	
5612		CO		100			VC	21.10478	
7625		CO		150			VC	5.57184	
8503	72.4	CO	70.02	225			VC	23.5372	1 in 26
5702	67.5	CO	65.89	225			VC	6.403124	
9810		CO		150			VC	6.839876	
5402	69.2	SW	66.81	300			VC	30.67572	
8801	76.1	CO	74.71	225			PVC	20.50152	1 in 137
6502	68.51	CO	63.78	450			VC	39.05125	1 in 122
7605		CO		150			VC	15.765	
9601	73.15	CO	71.85	225			VC	4.638062	
7801	71.55	CO	68.4	300			VC	26.87006	1 in 192
9807		CO	0	225			VC	5.741753	
9712	74.72	CO	69.07	450			VC	179.4018	1 in 109
9403	74.72	SW	72.67	375			CO	65.61438	1 in 2187
9404	73.78	SW	71.32	375			VC	23.76973	
6808		CO	0	225			VC	8.246211	
0711	75.21	SW	0	300			VC	43.86343	
7609		CO		150			VC	6.293238	
0607	75.92	CO	0	825			VC	21.18242	
7809	72.06	CO	68.03	300			VC	43.56604	1 in 30
5504		CO		225			VC	22.91981	
7511		CO		150			VC	12.23744	
9845		CO		150			UN	5.496526	
5400	68.6	CO	65.22	300			VC	27.07397	1 in 45
5400	68.6	CO	65.22	300			VC	27.07397	1 in 45
7602	69.86	CO	67.73	225			VC	64.93887	1 in 41
8608		CO		150			VC	11.88218	
7706	72.21	SW	69.02	600			CO	51.98865	1 in 289
8003	75.63	SW	74.24	225			VC	33.70107	1 in 44
8508	72.28	CO	70.19	375			VC	25.96151	1 in 13
5606	66.74	CO	63.69	300			VC	38.11824	1 in 238
5606	66.74	CO	63.69	300			VC	38.11824	1 in 238
4805	66.27	CO	63.17	300			VC	37.33631	1 in 249
4805	66.27	CO	63.17	300			VC	37.33631	1 in 249
9403		CO	0	375			VC	66.70832	
9701	75.25	CO	72.08	225			VC	1.414214	1 in 1
0804	76.13	SW	74.96	225			VC	70.5195	
0720		CO		100			VC	4.997401	
7617		SW		150			VC	10.9933	
98A2		CO		100			UN	8.145788	
9814		CO		150			VC	7.715446	
6804	70.39	CO	66.58	225			VC	34.71311	
6605	68.63	CO	65.25	450			VC	6.082763	
7001	74.9	FO	71.78	150			PVC	43.33681	1 in 39
5607	77.59	CO	75.04	375			VC	70.15969	1 in 132
5602	67.33	CO	64.79	450			VC	58.21512	1 in 92
7609	72.25	CO	67.88	300			VC	11.18034	1 in 280
9849		CO		100			VC	7.43496	
7504		CO		150			VC	29.58481	
6006	72.45	CO	69.14	375			CO	8.7737	1 in 40
5704	67.28	CO	65.5	225			VC	68.65858	1 in 221
7703		CO	0	225			VC	69.12308	
4606	66.53	CO	63.53	300			VC	8.944272	1 in 112
4606	66.53	CO	63.53	300			VC	8.944272	1 in 112
7607	72.18	CO	67.84	300			VC	52.39275	1 in 1048
7813		CO		150			VC	18.7485	
0815		CO		100			VC	7.00791	
7503		CO		150			VC	16.1325	
7008	72.52	FO	70.67	150			PVC	4.221481	1 in 47
5706		CO		150			VC	4.345753	
6704	68.4	CO	66.81	225			VC	61.39218	
8402	72.57	SW	66.8	1070			BR	125.5149	
6410	69.46	SW	67.77	300			VC	23.08679	1 in 2309
7614		CO		150			VC	43.99061	
6805	69.54	SW	66.72	375			VC	126.8688	1 in 49
9711	75.3	CO	72.9	150			VC	40.24922	1 in 48
7502	69.6	CO	67.1	225			VC	20.09975	
9805		CO	0	225			VC	13.41641	
6621		CO		150			VC	6.136359	
98A3		CO		100			UN	12.8292	
0605		CO	0	825			VC	13.79483	
6411	69.55	CO	63.91	750			BR	148.4413	1 in 69
6509		CO		100			VC	34.47498	
9602	72.99	CO	71.48	300			VC	61.18923	
6409	69.19	SW	67.76	300			VC	48.25971	1 in 73
0712	75.2	CO	72.86	225			VC	38.47077	1 in 13
7903	75.36	FO	72.22	150			PVC	63.26189	1 in 144
8904	75.94	FO	73.26	225				21.87479	1 in 0.31330265
8504	72.38	CO	69.02	375			VC	23.5372	1 in 107
7003	74.86	SW	72.45	375			CO	45.24305	1 in 24
6615		CO		100			VC	7.861065	
9507	72.82	SW	71.5	300			VC	91.04427	
0501	74.4	CO	73.3	225			VC	72.78049	
9708	75.66	CO	73.6	300			VC	18.78829	
7712		CO		100			VC	12.24354	
9506	73.27	CO	70.28	300			VC	23.5372	
5801	66.84	SW	64.15	375			VC	70.5762	1 in 131
5801	66.84	SW	64.15	375			VC	70.5762	1 in 131
5703	67.45	CO	65.83	225			VC	65.51414	1 in 262
7601	70.26	CO	66.16	450			VC	43.93177	1 in 56
9503	74.28	SW	73.13	225			VC	43.41659	1 in 52
5803	67.91	SW	66.06	225			VC	42.19004	
8011		CO		100			VC	6.888154	
0401	75.2	CO	73.46	225			VC	8.246211	1 in 29
0404	75.27	CO	72.73	300			VC	50.80354	1 in 212
0905		CO	0	225			VC	85.53462	
8507	72.6	CO	71.33	225			VC	56.08921	1 in 98
5816		CO		150			VC	3.883171	
0708	75.51	CO	74.83	225			VC	14.86607	1 in 12
8407	72.55	CO	71.18	225			VC	22.36068	1 in 9
5605	67.08	FO	64.69	300			VC	37.05402	1 in 37
7812		CO		150			VC	12.55155	
9803	75.38	CO	74.22	225			VC	8.451629	1 in 282
7605	72.23	CO	67.79	300			VC	26.92582	1 in 73
5808	66.46	CO	63.57	225			VC	25.96151	1 in 87
5808	66.46	CO	63.57	225			VC	25.96151	1 in 87
9705	75.01	CO	69.46	450			VC	25.96151	
8511	72.25	CO	68.23	600			BR	19.41649	1 in 114
4605	66.42	CO	63.68	300			VC	6.082763	1 in 152
4605	66.42	CO	63.68	300			VC	6.082763	1 in 152
4607	66.62	CO	63.36	300			CO	4.123106	1 in 206
4607	66.62	CO	63.36	300			CO	4.123106	1 in 206
0801	76.5	CO	75.33	225			VC	65.87872	1 in 59
4806	66.88	SW	64.67	675			BR	40.26164	1 in 16
4806	66.88	SW	64.67	675			BR	40.26164	1 in 16
8007	75.68	FO	72.57	300			VC	29.88785	1 in 120
5807	66.44	SW	64.28	375			CO	11.40175	
5807	66.44	SW	64.28	375			CO	11.40175	
8514	72.23	SW	70.68	225			VC	170.8801	1 in 60
0601	74.9	CO	73.75	225			VC	81.3941	1 in 70
7501	70.18	CO	68.15	225			VC	43.43351	1 in 53
8408	72.69	CO	71.4	225			VC	16.27882	1 in 203
8404	72.57	CO	71.31	225			VC	6.708204	1 in 56
6603	68.93	CO	67.02	225			VC	37.34021	1 in 29
7902	75.12	FO	72.5	150			PVC	37.18056	1 in 133
7710		CO		150			VC	12.01872	
7709		CO		150			VC	30.73373	
5604	67.14	SW	65.43	450			CO	47	1 in 61
7403	71.03	CO	69.2	225			VC	5.385165	1 in 2
8602	72.3	SW	68.71	375			VC	13.34166	
9502	74.61	CO	72.1	300			VC	23.5372	1 in 45
9407		SW	0	375			VC	22.2036	
0713		CO	0	225			VC	21.84033	
7711		CO		100			VC	2.806318	
6503		CO		150			VC	12.39137	
5405	68.62	SW	66.02	300			CO	11	1 in 25
5405	68.62	SW	66.02	300			CO	11	1 in 25
6619		CO		150			VC	12.15335	
8502	72.86	CO	71.73	225			VC	42.95346	
8409	73.11	CO	71.79	225			VC	42.95346	1 in 70
6607	68.74	CO	65.37	450			VC	6.324555	1 in 63
5509	67.52	SW	66.25	225			VC	92.96236	1 in 58
5509	67.52	SW	66.25	225			VC	92.96236	1 in 58
7813		CO		150			VC	2.505784	
6616		CO		100			VC	11.51318	
6604	67.82	CO	64.88	450			VC	36.13862	1 in 602

Refno	Cover	Func	Invert	Size x	Size y	Shape	Matl	Length	Grad
7406	70.58	SW	69.25	225			VC	62.96525	1 in 143
9501	74.7	CO	72.61	300			VC	22.2036	1 in 45
9604		CO	0	225			VC	5.626904	
6512		CO		150			VC	4.622412	
6701	69.26	CO	67.33	225			VC	35.99265	1 in 128
9879		CO		150			UN	6.29403	
7807	71.65	SW	67.31	500				17.46425	1 in 79
6705		CO		150			VC	19.34211	
9516	72.82	CO	0	300			VC	65.51336	
8513	72.35	CO	68.41	225			VC	9.246211	1 in 137
8002	76.26	SW	74.83	225			VC	54.14969	1 in 92
9909		CO	0	225			VC	7.071068	
6709		CO		150			VC	4.440329	
7702	70.53	CO	67.65	225			VC	56.29387	
7404	71.32	SW	69.87	225			VC	44.01136	1 in 72
7708		CO		150			VC	17.50042	
8001	76.73	SW	75.36	150			VC	46.86324	1 in 88
8515	72.17	SW	70.92	225			VC	25.70992	1 in 117
6801	68.58	SW	66.4	375			VC	68.74307	
8406	72.58	FO	70.42	225			VC	14.14214	
7606	72.2	SW	68.84	600			CO	27.08888	1 in 75
7009		FO		150			VC	3.392554	
8512	72.29	CO	68.27	640			BR	13.92839	1 in 696
9809		CO	0	225			VC	26.35992	
8510	71.99	CO	70.55	300			VC	21.37756	1 in 59
6501	68.32	CO	64.16	450			VC	26.01922	1 in 68
7619		CO		150			VC	5.324935	
0602	75.3	SW	73.01	300			VC	41.27594	1 in 125
7615		CO		150			VC	6.381211	
8403	71.84	CO	68.9	300			VC	46.23851	1 in 185
0502	74.66	CO	72.85	300			VC	6.324555	1 in 26
0405		CO	0	225			VC	73.97973	
8903	76.07	SW	74.43	225			PVC	46.77726	1 in 35
8902	76.15	SW	74.56	225			CO	19.21154	1 in 148
9908	75.8	CO	71.85	675			CO	7.969358	1 in 133
8506	72.22	CO	70.57	225			VC	20.61553	1 in 54
9702	75.25	CO	69.76	225			VC	8.246211	
9812		CO		150			VC	6.28882	
8609		CO		100			VC	10.56625	
9501	67.18	CO	65.19	225			VC	18.35756	1 in 122
9847		CO		100			VC	6.853762	
8528		CO		100			VC	1.606276	
9806	75.64	CO	74.28	225			VC	9.848858	
9848		CO		100			VC	6.329062	
6412	69.77	CO	64.46	700			BR	45.27692	1 in 82
9700	75.3	CO	69.9	450			VC	19.64688	1 in 45
6703	68.29	CO	66	225			VC	63.56099	1 in 57
7608	72.22	SW	68.12	750			BR	86.88498	
9002	76.12	CO	74.54	480			BR	38.91015	1 in 1946
0704	75.6	CO	74.22	300			VC	13.92839	1 in 87
9877		CO		100			VC	4.3866	
6706		CO		150			VC	7.823985	
6501	72.27	CO	68.44	380			BR	42.15103	1 in 53
9703	75.3	SW	73.58	300			VC	33.10589	
6601	69.11	CO	66.32	225			VC	89.73895	1 in 42
7603	72.21	CO	67.42	450			VC	49.34517	1 in 39
5401	69.6	SW	67.1	300			VC	33.24154	1 in 115
9878		CO		100			VC	13.31029	
6605	68.57	CO	65.28	450			VC	44.38468	1 in 77
9511		CO	0	225			VC	62.16912	
0403	75.19	SW	74.3	225			VC	43.17406	1 in 29
7405	70.97	CO	66.65	300			VC	64.25729	1 in 35
8006	76.3	FO	72.86	300			VC	57.84407	1 in 199
4421		FO		150			VC	33.20153	
4421		FO		100			VC	33.20153	
4423		SW		100			VC	9.83701	
4423		SW		100			VC	9.83701	
6811		CO		150			VC	5.998409	
6809		CO		150			VC	11.4196	
9707	74.88	CO	73.07	225			VC	38.9672	1 in 81
4424		SW		100			VC	27.52171	
4424		SW		100			VC	27.52171	
9818		CO		100			VC	72	
6802	68.54	CO	65.96	225			VC	68.59303	1 in 60
5407		FO	0	225			VC	67.6757	
5407		FO	0	225			VC	67.6757	
5804		CO		225			VC	45.86111	
5406	68.16	SW	65.14	300			VC	31.38471	1 in 101
5406	68.16	SW	65.14	300			VC	31.38471	1 in 101
6832		CO		150			VC	7.962317	
8606		CO		150			VC	66.58562	
5507	67.9	SW	66	225			VC	66.18913	
5507	67.9	SW	66	225			VC	66.18913	
9885		CO		150			VC	64.51561	
4501	66.46	CO	61.48	750			BR	116.2569	1 in 108
4501	66.46	CO	61.48	750			BR	116.2569	1 in 108
4420		FO		100			VC	10.03043	
4420		FO		100			VC	10.03043	

LEGEND

Abandoned · Foul · Surface Water · Combined

- Public Sewer
- Private Sewer
- Section 104
- Rising Main
- Sludge Main
- Overflow
- Water Course
- Highway Drain

All point assets follow the standard colour convention:
red - combined · blue - surface water
brown - foul · purple - overflow

- Manhole
- Head of System
- Extent of Survey
- Rodding Eye
- Inlet
- Discharge Point
- Vortex
- Penstock
- Washout Chamber
- Valve
- Air Valve
- Non Return Valve
- Soakaway
- Gully
- Cascade
- Flow Meter
- Hatch Box
- Oil Interceptor
- Summit
- Drop Shaft
- Orifice Plate
- Side Entry Manhole
- Outfall
- Screen Chamber
- Inspection Chamber
- Bifurcation Chamber
- Lamp Hole
- T Junction / Saddle
- Catchpit
- Valve Chamber
- Vent Column
- Vortex Chamber
- Penstock Chamber
- Network Storage Tank
- Sewer Overflow
- Ww Treatment Works
- Ww Pumping Station
- Septic Tank
- Control Kiosk
- Change of Characteristic

MANHOLE FUNCTION

FO	Foul
SW	Surface Water
CO	Combined
OV	Overflow

SEWER SHAPE

CI	Circular	TR	Trapezoidal
EG	Egg	AR	Arch
OV	Oval	BA	Barrel
FT	Flat Top	HO	HorseShoe
RE	Rectangular	UN	Unspecified
SQ	Square		

SEWER MATERIAL

AC	Asbestos Cement
BR	Brick
PE	Polyethylene
RP	Reinforced Plastic Matrix
CO	Concrete
CSB	Concrete Segment Bolted
CSU	Concrete Segment Unbolted
CC	Concrete Box Culverted
PSC	Plastic / Steel Composite
GRC	Glass Reinforced Plastic
DI	Ductile Iron
PVC	Polyvinyl Chloride
CI	Cast Iron
SI	Spun Iron
ST	Steel
VC	Vitrified Clay
PP	Polypropylene
PF	Pitch Fibre
MAC	Masonry, Coursed
MAR	Masonry, Random
U	Unspecified

Address or Site Reference:

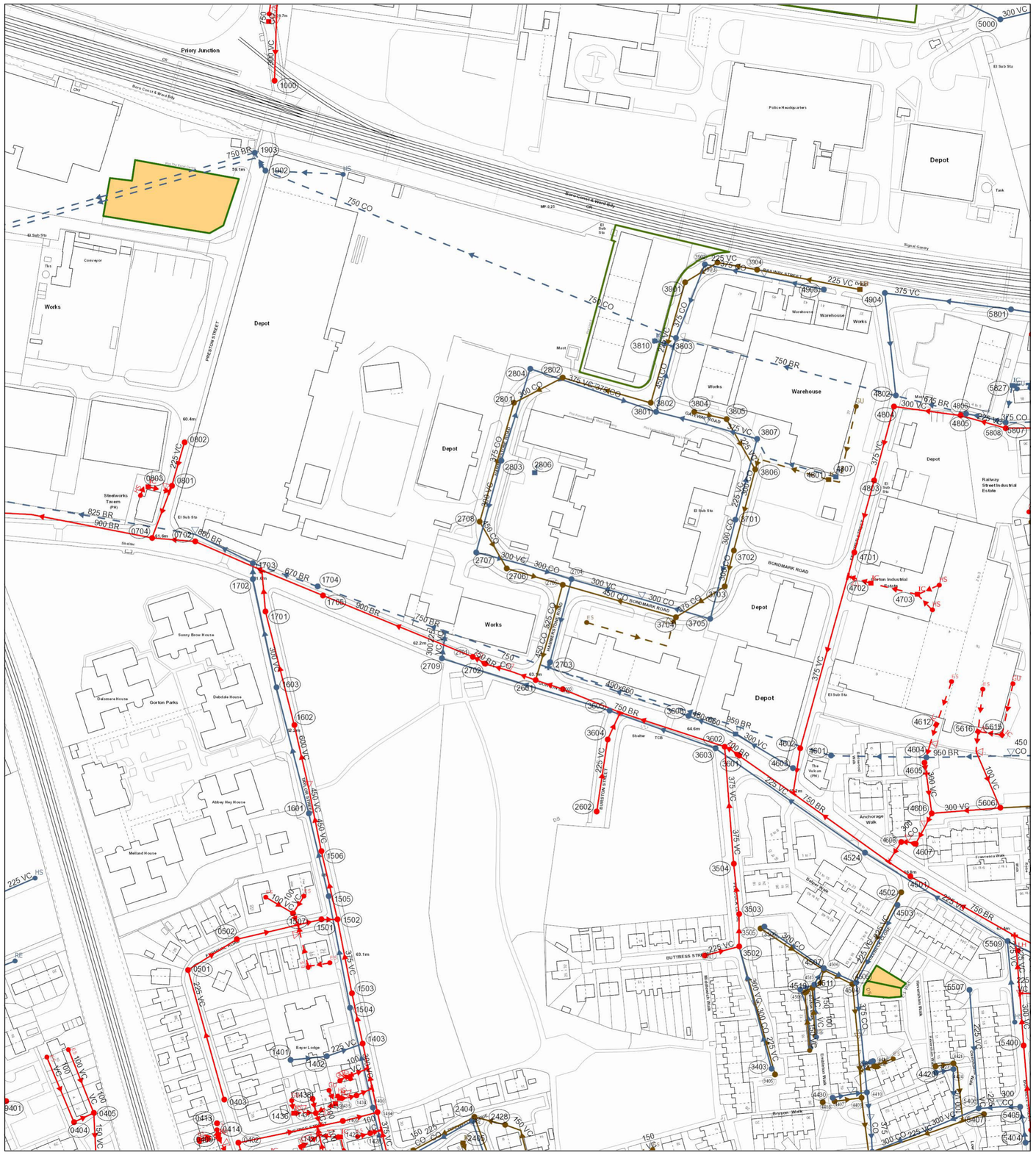
Hammerstone Road,

OS sheet Number: SJ8896NE
Scale: 1:1250 **Date:** 21/12/2018
Nodes: 289
Sheet: 1 of 3

Printed by: Property Searches

SEWER RECORDS

United Utilities — helping life flow smoothly



The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

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Refno	Cover	Func	Invert	Size x	Size y	Shape	Matl	Length	Grad
1704	61.62	SW	60.22	670			BR	38.27532	1 in 91
0501	63.6	CO	61.47	225			VC	31.90611	1 in 94
3605	63.11	SW	61.78	225			VC	97.41663	1 in 487
2704	63.98	SW	61.72	375			VC	47.53946	1 in 280
2703	63.2	SW	61.53	375			CO	3.162278	
1506	62.69	CO	59.1	450			VC	35.69314	1 in 238
5809		SW		375			CO	74.02702	
3903	65.28	FO	62.93	225			VC	21.09502	1 in 162
1404	63.75	CO	59.82	375			VC	38.93968	1 in 354
1505	62.89	SW	61.3	300			VC	47.29694	1 in 110
2706	64.03	FO	59.44	450			CO	32.28003	1 in 231
1503	63.38	CO	59.6	375			VC	41.7732	1 in 149
4502	66.52	FO	63.86	225			VC	57.70615	1 in 222
1501	63.06	CO	59.72	225			VC	9	1 in 23
0405		CO		150			VC	25.6127	
0802	60.4	CO	58.43	225			VC	25	1 in 62
4701	65.48	CO	61.88	375			VC	113.0541	1 in 153
5000	67.6	SW	63.75	750			CO	83.19255	1 in 132
5000	67.6	SW	63.75	750			CO	83.19255	1 in 132
5000	67.6	SW	63.75	750			CO	83.19255	1 in 132
3501	65.28	CO	62.68	225			VC	19.64688	1 in 68
1402	63.87	SW	61.56	225			VC	21.18962	1 in 26
2602	63.94	CO	62.79	225			VC	40.4475	
3506	65.43	SW	63.32	300			VC	40.22437	1 in 251
3603	64.59	SW	63.3	225			VC	62.62587	1 in 42
2804	64.42	SW	62.16	375			VC	37	1 in 112
4509		SW		100			VC	8.151942	
4904	65.88	SW	63.61	375			VC	57.31492	1 in 39
4511		FO		150			VC	13.11808	
1507		CO		100			VC	6.992642	
5404	68.94	SW	66.4	300			VC	10.04988	1 in 56
5404	68.94	SW	66.4	300			VC	10.04988	1 in 56
4604	66.41	SW	63.89	950			BR	53.00943	1 in 83
4604	66.41	SW	63.89	950			BR	53.00943	1 in 83
4803	65.47	CO	62.1	375			VC	41.48494	1 in 189
3701	63.99	SW	62.36	300			CO	56.75385	1 in 315
3504	65.29	CO	61.9	375			CO	65.19202	1 in 42
2709	62.66	SW	61.58	300			VC	8.062258	1 in 21
1601	62.39	SW	60.87	300			VC	72.27724	1 in 219
4407	66.52	SW	65.21	100			VC	10.19804	1 in 46
4603	65.19	SW	63.82	300			VC	51.14398	1 in 50
2707	64.12	SW	62.1	300			VC	27.89265	1 in 147
5402	69.2	SW	66.81	300			VC	30.67572	
1702	61.45	SW	60.12	300			VC	9	1 in 28
3904	65.56	FO	63.43	225			VC	22.36068	1 in 49
5808	64.58	SW	62.09	490			BR	82.5409	1 in 147
0502	63.3	CO	61.12	225			VC	35.01198	
1001	60.23	CO	58.03	750			CO	31.01612	1 in 3102
3902	65.12	SW	61.46	375			CO	44.01136	1 in 88
4507	66.28	FO	62.32	225			VC	17.88854	1 in 149
4418		FO		100			VC	8.321901	
2705	64.02	FO	59.24	525			CO	26.92582	1 in 135
4510		FO		150			VC	4.811526	
1428		CO		100			CO	6.470035	
5504		CO		225			VC	22.91981	
2803		SW	0	300			VC	52.88667	
5400	68.6	CO	65.22	300			VC	27.07397	1 in 45
5400	68.6	CO	65.22	300			VC	27.07397	1 in 45
1438		CO		100			VC	8.171019	
3704	64.03	FO	59.5	450			CO	65.52099	1 in 345
5606	66.74	CO	63.69	300			VC	38.11824	1 in 238
5606	66.74	CO	63.69	300			VC	38.11824	1 in 238
4805	66.27	CO	63.17	300			VC	37.33631	1 in 249
4805	66.27	CO	63.17	300			VC	37.33631	1 in 249
0404		CO		100			VC	12.12244	
1502	63.02	CO	59.32	450			VC	39.05125	1 in 178
2702	62.65	CO	58.49	750			BR	3.605551	1 in 45
3703	64	FO	59.87	375			CO	31.90611	1 in 123
1405	63.96	CO	60.41	300			VC	19.84008	1 in 40
2701	62.53	CO	58.24	900			BR	89.69392	1 in 63
4606	66.53	CO	63.53	300			VC	8.944272	1 in 112
4606	66.53	CO	63.53	300			VC	8.944272	1 in 112
3403	65.6	SW	63.49	300			CO	35.17101	1 in 64
2428		FO		150			VC	17.62741	
1902	58.9	SW		750			BR	9.219544	
1902	58.9	SW		750			BR	9.219544	
4506	66.31	SW	63.14	300			CO	19.69772	1 in 90
6805	69.54	SW	66.72	375			VC	126.8688	1 in 49
3807	64.24	SW	61.79	375			VC	29.12044	1 in 194
2603	63.23	CO	58.98	750			BR	15.81139	1 in 105
6411	69.55	CO	63.91	750			BR	148.4413	1 in 69
2803		SW	0	225			VC	53.45091	
3705	64.37	SW	62.18	300			CO	39.56008	1 in 172
3503	65.43	CO	62.05	375			VC	28.16026	1 in 188
0704	61.6	CO	55.15	900			BR	125.3284	
3805	64.02	FO	60.59	225			VC	32.24903	1 in 230
3806	64.05	FO	60.34	300			CO	46.57253	1 in 186
2802	64.04	FO	61.09	300			CO	30.41381	1 in 253
5801	66.64	SW	64.15	375			VC	70.5762	1 in 131
5801	66.64	SW	64.15	375			VC	70.5762	1 in 131
4802	65.5	SW	62.16	750			BR	126.1269	1 in 105
1504	63.44	SW	61.67	300			VC	63.15061	1 in 171
4505	66.46	FO	62.19	225			VC	31.14482	
4409	66.42	FO	64.94	150			VC	15.13275	
4513		SW		100			VC	10.59137	
5605	67.08	FO	64.69	300			VC	37.05402	1 in 37
1437		CO		100			VC	7.527121	
3502	65.78	CO	62.37	375			VC	18	1 in 56
5808	66.46	CO	63.57	225			VC	25.96151	1 in 87
5808	66.46	CO	63.57	225			VC	25.96151	1 in 87
4605	66.42	CO	63.68	300			VC	6.082763	1 in 152
4605	66.42	CO	63.68	300			VC	6.082763	1 in 152
4607	66.62	CO	63.36	300			CO	4.123106	1 in 206
4607	66.62	CO	63.36	300			CO	4.123106	1 in 206
4806	66.88	SW	64.67	675			BR	40.26164	1 in 16
4806	66.88	SW	64.67	675			BR	40.26164	1 in 16
2402	64.55	SW	62.69	225			CO	37.55204	1 in 139
5807	66.44	SW	64.28	375			CO	11.40175	
5807	66.44	SW	64.28	375			CO	11.40175	
4804	65.52	CO	62.5	375			VC	42.44997	1 in 106
0403	64.06	CO	62.07	225			VC	74.72617	1 in 131
3901	64.78	FO	62.77	225			VC	69.64194	1 in 75
0702	61.52	CO	55.58	900			BR	24.08319	1 in 56
3505	65.44	FO	62.61	225			VC	41.88078	1 in 155
5604	67.14	SW	65.43	450			CO	47	1 in 61
3406	65.92	FO	63.12	225			VC	37.36308	1 in 117
0801	60.67	CO	58.03	225			VC	31.01612	1 in 16
1434		CO		100			VC	9.594636	
1401	63.88	SW	62.78	225			VC	20.09975	1 in 16
5405	68.62	SW	66.02	300			CO	11	1 in 25
5405	68.62	SW	66.02	300			CO	11	1 in 25
2801	64.04	FO	61.86	375			CO	68.68042	1 in 48
5509	67.52	SW	66.25	225			VC	92.96236	1 in 58
5509	67.52	SW	66.25	225			VC	92.96236	1 in 58
3401	63.37	CO	60.93	225			VC	34.9285	1 in 49
3803	64.25	SW	60.96	750			CO	246.2377	1 in 67
2404	64.59	FO	61.84	150			CO	38.75735	1 in 34
1603	61.91	SW	60.54	300			VC	61.39218	1 in 146
2708	64.04	FO	59.55	450			CO	30.01666	1 in 300
4503	66.51	SW	64.34	225			VC	23.70654	1 in 263
1902	58.9	SW	57.27	750			BR	11.6619	1 in 10
1902	58.9	SW	57.27	750			BR	11.6619	1 in 10
3804	63.97	FO	60.73	225			VC	18.43909	1 in 168
1602	62.14	CO	58.71	600			VC	65	
3701	63.99	SW	62.36	225			VC	46.57253	1 in 82
1703	61.41	SW	59.8	860			BR	35.77709	
3802	64.01	FO	61.81	225			VC	50.96077	1 in 78
1400	63.71	SW	61.87	300			VC	56.93646	1 in 285
3702	64.01	FO	60.08	300			CO	20.61553	1 in 187
3601	64.82	CO	60.4	700			BR	5	1 in 167
4601	65.36	SW	63.25	959			BR	164.4688	1 in 105
4524	66.13	SW	64.64	225			VC	101.2571	1 in 77
1903	59.03	SW	56.13	750			BR	181.0414	
1903	59.03	SW	56.13	750			BR	181.0414	
4905	65.74	SW	62.37	300			VC	33.73426	1 in 86
2601	63.08	CO	58.83	750			BR	14.86607	1 in 186
0402	64.28	CO	62.29	225			VC	59.22848	1 in 114
1403	63.68	CO	59.7	375			VC	28.63564	1 in 286
4410	66.87	SW	64.76	150			VC	16.12452	1 in 16
3804	63.18	CO	0	225			VC	16.55295	
5806	67.38	CO	64.83	225			VC	72	
1705	61.59	CO	56.81	900			BR	77.08084	1 in 63
4602	65.24	CO	61.12	375			VC	25.31798	
5407		FO	0	225			VC	67.6757	
5407		FO	0	225			VC	67.6757	
5406	68.16	SW	65.14	300			VC	31.38471	1 in 101
5406	68.16	SW	65.14	300			VC	31.38471	1 in 101
4409	66.9	FO	64.63	150			VC	31.257	
4608	66.5	CO	63.27	300			VC	13.0384	
4501	66.46	CO	61.48	750			BR	116.2569	1 in 108
4501	66.46	CO	61.48	750			BR	116.2569	1 in 108
4420		FO		100			VC	10.03043	
4420		FO		100			VC	10.03043	
4416		SW		100			VC	5.088661	
4421		FO		100			VC	33.20153	
4421		FO		100			VC	33.20153	
4423		SW		100			VC	9.83701	
4423		SW		100			VC	9.83701	
4504	66.45	SW	62.9	375			CO	30.14963	
4424		SW		100			VC	27.52171	
4424		SW		100			VC	27.52171	
1701	61.73	CO	0	600			VC	23.08679	
5507	67.9	SW	66	225			VC	66.18913	
5507	67.9	SW	66	225			VC	66.18913	
3801	63.98	SW	61.43	450			CO	42.45087	1 in 90
3602	64.67	CO	60.34	750			BR	95.57261	1 in 70

Refno	Cover	Func	Invert	Size x	Size y	Shape	Matl	Length	Grad

LEGEND

Abandoned · Foul · Surface Water · Combined

- Public Sewer
- Private Sewer
- Section 104
- Rising Main
- Sludge Main
- Overflow
- Water Course
- Highway Drain

All point assets follow the standard colour convention:
red - combined · blue - surface water
brown - foul · purple - overflow

- Manhole
- Head of System
- Extent of Survey
- Rodding Eye
- Inlet
- Discharge Point
- Vortex
- Penstock
- Washout Chamber
- Valve
- Air Valve
- Non Return Valve
- Soakaway
- Gully
- Cascade
- Flow Meter
- Hatch Box
- Oil Interceptor
- Summit
- Drop Shaft
- Orifice Plate
- Side Entry Manhole
- Outfall
- Screen Chamber
- Inspection Chamber
- Bifurcation Chamber
- Lamp Hole
- T Junction / Saddle
- Catchpit
- Valve Chamber
- Vent Column
- Vortex Chamber
- Penstock Chamber
- Network Storage Tank
- Sewer Overflow
- Ww Treatment Works
- Ww Pumping Station
- Septic Tank
- Control Kiosk
- Change of Characteristic

MANHOLE FUNCTION

FO	Foul
SW	Surface Water
CO	Combined
OV	Overflow

SEWER SHAPE

CI	Circular	TR	Trapezoidal
EG	Egg	AR	Arch
OV	Oval	BA	Barrel
FT	Flat Top	HO	HorseShoe
RE	Rectangular	UN	Unspecified
SQ	Square		

SEWER MATERIAL

AC	Asbestos Cement
BR	Brick
PE	Polyethylene
RP	Reinforced Plastic Matrix
CO	Concrete
CSB	Concrete Segment Bolted
CSU	Concrete Segment Unbolted
CC	Concrete Box Culverted
PSC	Plastic / Steel Composite
GRC	Glass Reinforecd Plastic
DI	Ductile Iron
PVC	Polyvinyl Chloride
CI	Cast Iron
SI	Spun Iron
ST	Steel
VC	Vitrified Clay
PP	Polypropylene
PF	Pitch Fibre
MAC	Masonry, Coursed
MAR	Masonry, Random
U	Unspecified

Address or Site Reference:

Hammerstone Road,

OS sheet Number: SJ8896NW
Scale: 1:1250 **Date:** 21/12/2018
Nodes: 176
Sheet: 2 of 3

Printed by: Property Searches

SEWER RECORDS

United Utilities — helping life flow smoothly



Refno	Cover	Func	Invert	Size x	Size y	Shape	Matl	Length	Grad
3403	69.98	CO	65.15	300			VC	5.09902	1 in 102
3203	66.76	SW	63.54	600			VC	27.29469	1 in 101
1202	65.43	SW	61.82	1100			CO	37.10795	1 in 265
0516		CO		150			CO	38.06688	
9403	63.4	CO	49.97	1900			CO	188.9577	1 in 212
3106	66.76	SW	63.8	450			CO	20.22375	1 in 0.33328524
4201	67	FO	64.66	300			VC	96.17692	1 in 1.55853055
2100	66.37	SW	62.14	1000			VC	31.14482	1 in 346
0511		CO		100			VC	12.69583	
3517		CO		100			VC	12.17035	
0503	63.59	CO	61.59	230			VC	16.18034	
4103	66.84	CO	62.59	300			BR	96.33794	1 in 40
3204	66.73	SW	63.59	600			CO	30.14903	1 in 0.49941406
2300	63.87	CO	0	375			VC	53.15073	
3508	67.84	SW	66.26	300			VC	21.58703	
3302	67.81	CO	64.59	300			VC	12.04159	
3101	66.71	SW	62.62	1000			CO	39.31921	1 in 218
2205	63.87	CO	55.46	450			CO	16.27882	1 in 0.33093760
4202	66.75	SW	63.71	525			CO	29.42788	1 in 0.48584906
1205	65.41	CO	55.39	1350			CO	9	
3404	69.05	FO	66.72	150			VC	9.055386	1 in 82
3509	68.85	SW	66.9	225			VC	45.17743	1 in 78
0400	64.03	CO	57.04	560			VC	45.39824	1 in 22
1105	59.4	CO	55.7	900			BR	4.46521	
0512		CO		100			VC	8.004173	
3401	68.28	SW	65.7	300			VC	19	1 in 211
3102	66.88	FO	60.43	375			CO	77.64664	1 in 1.43603912
1302	63.14	CO	59.63	450			VC	171.7451	1 in 53
3505	69.95	CO	66.65	300			VC	36.12478	1 in 23
9400	63.48	CO	59.06	700			BR	17.11724	
1103	65.5	SW	62.27	450			CO	23.34524	1 in 0.39662309
5000	67.6	SW	63.75	750			CO	83.19255	1 in 132
5000	67.6	SW	63.75	750			CO	83.19255	1 in 132
5000	67.6	SW	63.75	750			CO	83.19255	1 in 132
3529		CO		150			VC	2.369257	
2503		CO	0	150			VC	11.18034	
3202	66.75	SW	63	600			CO	110.3177	1 in 115
2104	66.85	FO	60.47	375			CO	52.61179	1 in 0.96006908
2106	66.96	SW	62.76	450			CO	57.70615	1 in
2200	66.82	SW	63.46	450			CO	35.51056	1 in 0.58889820
2401		CO	0	600			BR	15.7502	
4400	69.6	CO	66.29	525			BR	11.40175	1 in 127
3303	67.86	SW	64.61	450			BR	75.10659	1 in 70
3100	66.73	SW	62.44	1000			CO	95.03683	1 in 9504
2207	64.31	CO	55.87	300			VC	28.4605	1 in 0.59942079
3507	68.87	FO	66.3	225			VC	47.09565	1 in 96
1203	63.75	CO	61.29	375			CO	96.88137	1 in 1.67180967
2202	65.37	CO	57.37	375			VC	43.18565	1 in 0.88169959
0508	64.61	CO	61.12	300			VC	49.16299	1 in 62
0505	64.19	CO	60.33	300			VC	53.33854	
4300	70.06	SW	66.61	375			VC	81.3941	1 in 41
9408		CO		150			VC	8.250588	
1108	59.41	CO	55.72	900			BR	440.8044	1 in 143
4200	66.9	SW	64.68	450			CO	98.99495	1 in 1.60915067
4000	66.74	SW	63.12	750			CO	66.61081	1 in 133
3411	69.33	CO	66.09	525			CO	25.17936	1 in 93
1201	65.38	CO	57.65	375			CO	20.22375	1 in 0.40609936
2201	66.9	SW	63.23	525			CO	90.42677	1 in 1.50485548
3803	64.25	SW	60.96	750			CO	246.2377	1 in 67
5302		CO	0	1875			VC	305.9744	
1400	65.16	CO	62.71	300			VC	81.49847	1 in 92
2203	65.44	SW	61.68	1100			CO	47.04253	1 in 784
3530		CO		150			VC	22.79252	
0401	64.43	CO	60.43	600			BR	48.16638	
1104	65.45	SW	62.04	1000			CO	49.36598	1 in 380
3409	68.95	CO	65.74	525			CO	13	1 in 46
4101	66.53	SW	64.48	375			CO	85.88837	1 in 1.41544644
1001	60.23	CO	58.03	750			CO	31.01612	1 in 3102
0403	64.29	CO	61.8	300			VC	94.42987	1 in 90
3408	69.31	CO	65.3	525			CO	7.28011	1 in 30
4502	70.75	CO	67.2	750			CO	6	1 in 600
1902	58.9	SW	57.27	750			BR	11.6619	1 in 10
1902	58.9	SW	57.27	750			BR	11.6619	1 in 10
3301	64.91	CO	61.6	300			VC	68.18358	
9402	63.25	CO	60.73	300			VC	48.50773	1 in 25
3502	68.38	CO	64.3	300			VC	49.36598	1 in 97
0515		CO		150			VC	7.343301	
2101	66.65	SW	62.39	1000			CO	24.08319	1 in 127
3407	69.6	CO	64.81	610			BR	4	
1107	65.49	SW	61.95	1100			CO	37.21559	1 in 372
9303	62.6	CO	57.17	300			VC	73.5527	1 in 736
4203	66.76	SW	64.18	375			VC	34.23449	1 in 0.55993597
1106	65.36	CO	57.72	450			CO	19.23538	1 in 0.38440015
0505	64.19	CO	0	300			VC	53.15073	
3516		CO		100			VC	15.17295	
1102	62.63	CO	60.66	300			CO	45.54119	1 in 0.77901454
2400	65.93	CO	62.39	600			BR	16.03122	1 in 94
3200	66.93	SW	63.77	525			BR	82.03658	1 in 1.36454719
0508	64.61	CO	0	300			VC	53.23532	
3103	66.93	SW	63.2	450			CO	95.03683	1 in 1.61024796
3402	70.16	SW	65.52	300			CO	3.605551	1 in 36
0513		CO		150			VC	9.943265	
9501	63.33	CO	59.66	375			VC	52.34501	1 in 145
4104	66.81	SW	64.15	375			CO	25.17936	1 in 0.41075622
1404	65.55	CO	50.82	1900			CO	176.8191	1 in 208
1502	65.43	CO	62.43	300			VC	85.37564	1 in 65
4501	70.64	CO	67.07	300			VC	32.24903	1 in 77
5505		CO	0	300			VC	71.10891	
3510		FO		150			VC	12.14108	
4100	66.91	FO		375			CO	98.31073	1 in
1304		CO	0	1400			CO	99.04544	
4405		CO	0	450			CO	34.04025	
2206	65.55	SW	61.59	1100			CO	18	1 in 6
3201	67.01	FO	63.03	300			VC	97.98664	1 in 1.66163537
1206	65.41	CO	61.22	375			CI	1	1 in 1.82648401
2105	66.89	CO	59.32	900			BR	132.4825	1 in 37
1902	58.9	SW		750			BR	9.219544	
1902	58.9	SW		750			BR	9.219544	
3515		CO		100			VC	10.15714	
9300	62.63	CO	58.66	450			VC	18.11077	1 in 82
1903	59.03	SW	56.13	750			BR	181.0414	
1903	59.03	SW	56.13	750			BR	181.0414	
2204	66.38	FO	57.85	300			VC	34.36568	1 in 0.68910528
4102	66.97	CO	60.17	300			BR	70.71068	1 in 168
2301	66.57	CO	62.91	375			VC	35.22783	
2501		CO	0	300			VC	21.0238	
0402	64.29	CO	61.78	300			VC	38.20995	
3504	69.12	CO	65.07	300			VC	45.18677	1 in 59
3506	67.81	FO	65.78	225			VC	56.6198	
1401	65.15	CO	62.06	300			VC	7.071068	
1402	65.73	CO	62.2	600			BR	128.6353	1 in 74
3400	68.24	CO	64.41	600			BR	107.6569	

Refno	Cover	Func	Invert	Size x	Size y	Shape	Matl	Length	Grad

LEGEND

Abandoned · Foul · Surface Water · Combined

- Public Sewer
- Private Sewer
- Section 104
- Rising Main
- Sludge Main
- Overflow
- Water Course
- Highway Drain

All point assets follow the standard colour convention:
red - combined · blue - surface water
brown - foul · purple - overflow

- Manhole
- Head of System
- Extent of Survey
- Rodding Eye
- Inlet
- Discharge Point
- Vortex
- Penstock
- Washout Chamber
- Valve
- Air Valve
- Non Return Valve
- Soakaway
- Gully
- Cascade
- Flow Meter
- Hatch Box
- Oil Interceptor
- Summit
- Drop Shaft
- Orifice Plate
- Side Entry Manhole
- Outfall
- Screen Chamber
- Inspection Chamber
- Bifurcation Chamber
- Lamp Hole
- T Junction / Saddle
- Catchpit
- Valve Chamber
- Vent Column
- Vortex Chamber
- Penstock Chamber
- Network Storage Tank
- Sewer Overflow
- Ww Treatment Works
- Ww Pumping Station
- Septic Tank
- Control Kiosk
- Change of Characteristic

MANHOLE FUNCTION

FO	Foul
SW	Surface Water
CO	Combined
OV	Overflow

SEWER SHAPE

CI	Circular	TR	Trapezoidal
EG	Egg	AR	Arch
OV	Oval	BA	Barrel
FT	Flat Top	HO	HorseShoe
RE	Rectangular	UN	Unspecified
SQ	Square		

SEWER MATERIAL

AC	Asbestos Cement
BR	Brick
PE	Polyethylene
RP	Reinforced Plastic Matrix
CO	Concrete
CSB	Concrete Segment Bolted
CSU	Concrete Segment Unbolted
CC	Concrete Box Culverted
PSC	Plastic / Steel Composite
GRC	Glass Reinforecd Plastic
DI	Ductile Iron
PVC	Polyvinyl Chloride
CI	Cast Iron
SI	Spun Iron
ST	Steel
VC	Vitrified Clay
PP	Polypropylene
PF	Pitch Fibre
MAC	Masonry, Coursed
MAR	Masonry, Random
U	Unspecified

Address or Site Reference:

Hammerstone Road,

OS sheet Number: SJ8897SW
Scale: 1:1250 **Date:** 21/12/2018
Nodes: 122
Sheet: 3 of 3

Printed by: Property Searches

SEWER RECORDS

United Utilities — helping life flow smoothly

The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

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Appendix C

Topographical and GPR Survey

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PLAN GRID NORTH

File Name: 520758-U.dwg

LEGEND

AV	AIR VALVE	BT	BT
BT	BT INSPECTION COVER	BT	BT STAT RECORD
CB	CONTROL BOX	CB	CABLE DUCT
CBP	CONTROL BOX POST	CBP	CABLE DUCT STAT RECORD
COM	COMMUNICATIONS COVER	CTV	CABLE TV
CTV	CABLE TV COVER	CTV	CABLE TV STAT RECORD
DC	DRAINAGE CHANNEL	DC	COAL
DP	DOWN PIPE	DC	COAL STAT RECORD
DP	DOWN PIPE	CCTV	CCTV STAT RECORD
EIC	ELEC. INSPECTION COVER	TEL	TELECOMS
EIC	ELEC. INSPECTION COVER	TEL	TELECOMS STAT RECORD
EP	EARTH POINT	E	EARTH ROD STAT RECORD
ER	EARTH ROD	E	EARTH ROD STAT RECORD
EP	ELECTRICITY POLE	E	ELECTRIC
FH	FIRE HYDRANT - COVER LEVEL	E	ELECTRIC STAT RECORD
FH	FIRE HYDRANT	FO	FIBRE OPTICS
G	GULLY	FO	FIBRE OPTICS STAT RECORD
GLT	GROUND LIGHT	FL	FUEL LINE
GSV	GAS TAP	FL	FUEL LINE STAT RECORD
GSV	GAS VALVE	FL	FUEL LINE UNKNOWN
IC	INSPECTION COVER	GAS	GAS
IL	INVERT LEVEL	GAS	GAS STAT RECORD
LP	LAMP POST	MW	MAINS WATER
LP	LAMP POST	MW	MAINS WATER STAT RECORD
MH	MANHOLE	SW	SEWER SW
MH	MANHOLE	SW	SEWER SW STAT RECORD
OP	OUTFALL PIPE	FW	SEWER FW
PC	PETROL CAP	FW	SEWER FW STAT RECORD
PP	PETROL PUMP	CW	SEWER UK
RE	RODDING EYE	CW	SEWER UK STAT RECORD
RWP	RAIN WATER PIPE	TC	TRAFFIC CONTROL CABLE
SOF	SOFFIT LEVEL	TC	TRAFFIC CONTROL CABLE
SV	STOP VALVE	UP	UNIDENTIFIED TRACE
TB	TELEPHONE CALL BOX	UP	UNIDENTIFIED TRACE
TL	TRAFFIC LIGHT	UP	UNIDENTIFIED PIPE
TSP	TRAFFIC LIGHT BOX	VC	VIDEO CABLE
TP	TRIAL PIT / PROBE	VC	VIDEO STAT RECORD
WV	WATER VALVE	SURVEY	SURVEY BOUNDARY
WCT	WATER CONTROL TAP	SURVEY	SURVEY BOUNDARY
WST	WATER STOP TAP		
WSV	WATER STOP VALVE		
EOT	END OF TRACE		
EOA	END OF SURVEY AREA		
UTL	UNABLE TO LIFT		
UTS	UNABLE TO SONDE		
UTT	UNABLE TO TRACE		
S/L	SIGNAL LOSS		
BLK	BLOCKED		
NC	NO CONNECTION (DPE CONTACTS)		
MC	MICROPIPE MARK		
TOP	TOP OF PIPE		
INV	INVERT LEVEL		
FR	FITTING FROM RECORDS		

QUALITY LEVEL

Quality Level

A – Verification

B1 – Horizontal/Vertical location using multiple techniques

B2 – Horizontal/Vertical location using a single technique

B3 – Horizontal location using a single technique

B4 – Assumed route

C – Site Reconnaissance

D – Desktop utility records search

NOTES:

All levels relate to O.S (Newlyn) Datum, Established using network RTK.

Survey Coordinates relate to local grid, orientated to National GNS.

The underground utilities survey was conducted in compliance with the BSI PAS128:2014 standards.

Services linetypes display text indicating Rid on abbreviation of the services' function (eg. EL = Electric Cable) followed by the Quality Level (eg. A) and then the Survey Method (eg. 1 = Electromagnetic). Lines annotated as GPR were located using only the Ground Penetrating Radar and should be considered as Quality Level B2. Quality Level descriptions shown in the above legend are for reference purposes only and are not intended as detailed specifications.

For full information on Quality Levels, please consult the BSI PAS128:2014 standards document.

DISCLAIMER:

All SEP we use skilled and experienced staff, modern up to date techniques and top of the range electromagnetic and radar technology to locate and trace sub-surface utilities. However the performance of the equipment employed in non-invasive surveys can be adversely affected by factors outside the control of SEP. Therefore SEP cannot guarantee that all utilities present on site have been located. It is the responsibility of the Client to consult regional authority records and undertake trial digs where appropriate.

Where similar services run in close proximity it may be impossible to separately trace individual services as the trace signal can experience interference. In such cases, services will be shown as a single, annotated line. The displayed depth will refer to the shallowest detected utility.

Successful tracing of non-conductive materials may be limited. Drainage gullies are also tested where possible to prove connectivity but it is not always possible to introduce the sonde due to narrow pipe sizes and/or accumulated silt.

Depth information of underground services/features are generally accurate to within +/- 10% (i.e. a pipe at 2m deep may be accurate to +/-200mm) but this cannot be guaranteed. Depths shown usually refer to the top of the service. Gravity sewer and drain depths are usually to invert (base of drainage channel) unless otherwise stated.

Some above ground features may have been obscured at time of survey. It is not always possible to operate the Ground Penetrating Radar in areas including, but not limited to, dense vegetation, rubble, debris and/or rough/uneven ground.

Existing record information that was made available to SEP by the Client or by the statutory utility provider should be regarded only as an indication and cannot be guaranteed.

Excavation in the vicinity of services shown should be carried out with due diligence (Ref. HSG47).



SHEET LAYOUT

0 2m 4m 8m 12m 16m

SCALE BAR

REV	DATE	DESCRIPTION

SURVEY & ENGINEERING PROJECTS

Client
Morgan Sindall
Anchorage 2
Salford Quays
Manchester
M50 3YW

Project Title
CCTV Survey of Land at:
Hammerstone Road Depot
Gorton
Manchester
M18 8EQ

Surveyed	Drawn	Checked
SEP	J.Cherry	SEP

Scale	Date	Drawing Ref.	No.	Size	Rev
1:200	Sept 20	520758-U	01	A0	--

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PLAN GRID NORTH

File Name: S20758-U.dwg

LEGEND

AV	AIR VALVE	BT	BT STAT RECORD
BT	BT INSPECTION COVER	CB	CABLE DUCT
CB	CONTROL BOX		CABLE DUCT STAT RECORD
CBP	CAR PARK PAY POST	CCTV	CCTV
COM	COMMUNICATIONS COVER		CCTV STAT RECORD
CTV	CABLE TV COVER	CTV	CABLE TV
DM	DRAINAGE MANHOLE		CABLE TV STAT RECORD
DP	DOWN PIPE	EC	ELECTRIC
DP	DRAIN POINT		ELECTRIC STAT RECORD
EIC	ELEC. INSPECTION COVER	EC	TELECOMS
EM	ELEC. METER		TELECOMS STAT RECORD
ER	EARTH ROD		EARTH ROD STAT RECORD
EP	ELECTRICITY POLE	EC	ELECTRIC
FH	FIRE HYDRANT ABOVE LEVEL		ELECTRIC STAT RECORD
FH	FIRE HYDRANT		FIBRE OPTICS
G	GULLY		FIBRE OPTICS STAT RECORD
GLT	GANTRY LIGHT	FL	FUEL LINE
GSV	GAS VALVE		FUEL LINE STAT RECORD
GSV	GAS VALVE		GAS
IC	INSPECTION COVER		GAS STAT RECORD
IL	INVERT LEVEL		GAS STAT RECORD
LP	LAMP POST		MAINS WATER
LT	LAMP OUTLET		MAINS WATER STAT RECORD
MH	MANHOLE		SEWER CM
MW	MANWAY		SEWER CM STAT RECORD
OP	OUTFALL PIPE		SEWER FM
PC	PETROL CAP		SEWER FM STAT RECORD
PP	PETROL PUMP		SEWER SM
RE	RODDING EYE		SEWER SM STAT RECORD
SHP	SHOWER HEAD PIPE		TRAFFIC SIGNAL CABLE
SOF	SOFFIT LEVEL		TRAFFIC SIGNALS
SV	STOP VALVE		UNIDENTIFIED TRACE
TB	TELEPHONE JUNCTION BOX		UNIDENTIFIED TRACE
TL	TRAFFIC LIGHT		UNIDENTIFIED DUCT
TSP	TRAFFIC LIGHT BOX		UNIDENTIFIED PIPE
TP	TRIAL PIT/TEST PIT		VOLTAGE CABLE
WV	WATER VALVE		VOLTAGE CABLE STAT RECORD
WC	WATER CONNECTION		SURVEY BOUNDARY
WST	WATER STOP TAP		ADDITIONAL SURVEY
WSV	WATER STOP VALVE		accuracy +/- 0.100m for all detail

QUALITY LEVEL

A – Verification

B1 – Horizontal/Vertical location using multiple techniques

B2 – Horizontal/Vertical location using a single technique

B3 – Horizontal location using a single technique

B4 – Assumed route

C – Site Reconnaissance

D – Desktop utility records search

EDT END OF TRACE
EOA END OF ACCESS AREA
UTL UNABLE TO LIFT
UTS UNABLE TO SONDE
UTT UNABLE TO TRACE
SLL SIGNAL LOSS
BLK BLOCKED
CP CATHODIC PROTECTION CONTACTS
SC SACRIFICIAL ANODE
TOP TOP OF PIPE
BOT BOTTOM OF PIPE
FITTING FROM RECORDS

NOTES:

All levels relate to O.S (Newlyn) Datum, Established using network RTK.
Plan orientated to Grid North (Transverse Mercator grid), orientated to National GNSS.
Topographical survey was conducted in compliance with the BSI PAS128:2014 standards.
Services linetypes display text indicating (for an abbreviation of the service) function (eg. EL = Electric Cable) followed by the Quality Level (eg. B2 = Horizontal/Vertical location using a single technique).
Lines annotated as GPR were located using only the Ground Penetrating Radar and should be considered as Quality Level B2.
Quality Level descriptions shown in the above legend are for reference purposes only and are not intended as definitive descriptions.
For full information on Quality Levels, please consult the BSI PAS128:2014 standards document.

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Where similar services run in close proximity it may be impossible to separately trace individual services as the trace signal can experience interference. In such cases, services will be shown as a single, unnotated line. The displayed depth will refer to the shallowest detected utility.

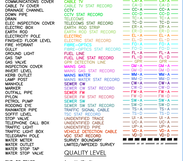
Successful tracing of non-conductive materials may be limited. Drainage gullies are also traced where possible to prove connectivity but it is not always possible to introduce the sonde due to narrow pipe sizes and/or accumulated silt.

Depth information of underground services/features are generally accurate to within +/- 10% (i.e. a pipe at 2m deep may be accurate to +/-200mm) but this cannot be guaranteed. Depths shown usually refer to the top of the service. Grivolly sewer and drain depths are usually to invert (base of drainage channel) unless otherwise stated.

Some above ground features may have been obscured at time of survey. It is not always possible to operate the Ground Penetrating Radar in areas including, but not limited to, dense vegetation, rubble, debris and/or rough/uneven ground.

Existing record information that was made available to SEP by the Client or by the statutory utility provider should be regarded only as an indication and cannot be guaranteed.

Excavation in the vicinity of services shown should be carried out with due diligence (Ref. HSG47).



SHEET LAYOUT

0 2m 4m 8m 12m 16m

SCALE BAR

REV	DATE	DESCRIPTION

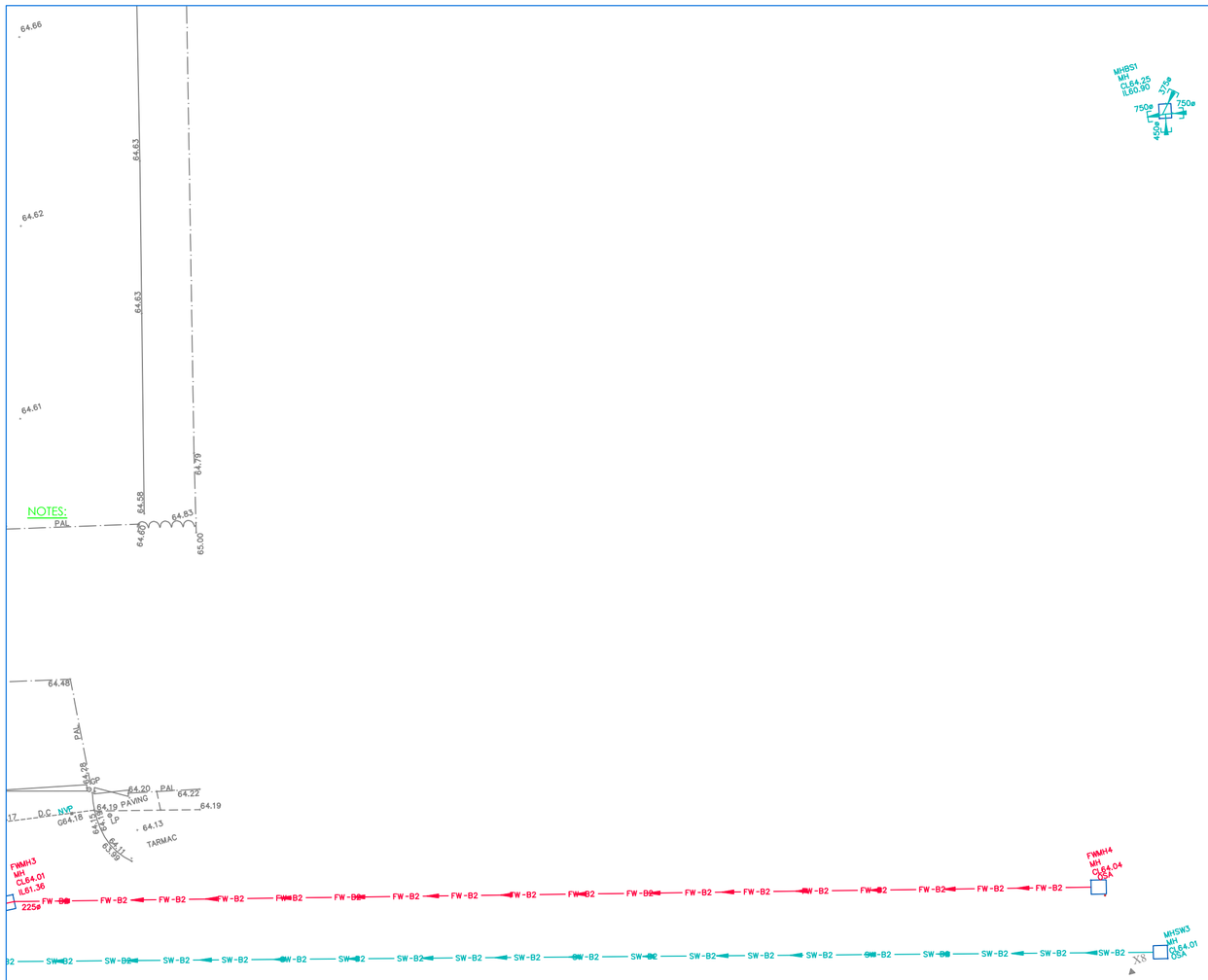
SURVEY & ENGINEERING PROJECTS

Client
Morgan Sindall
Anchorage 2
Salford Quays
Manchester
M50 3YW

Project Title
CCTV Survey of Land at:
Hammerstone Road Depot
Gorton
Manchester
M18 8EQ

Surveyed	Drawn	Checked
SEP	J.Cherry	SEP

Scale	Date	Drawing Ref.	No.	Size	Rev
1:200	Sept 20	S20758-U	02	A0	--



LEGEND

AV	AIR VALVE	BT	BT-A BT-D
BT	BT INSPECTION COVER	BT STAT RECORD	BT-A BT-D
CB	CONTROL BOX	CABLE DUCT	DU-A DU-D
CCTV	CCTV CAMERA POST	CABLE DUCT STAT RECORD	DU-A DU-D
COM	COMMUNICATIONS COVER	CABLE TV	CA-A CA-D
CTV	CABLE TV COVER	CABLE TV STAT RECORD	CA-A CA-D
DC	DRAINAGE CHANNEL	CCTV	CC-A CC-D
DP	DOWN PIPE	CCTV STAT RECORD	CC-A CC-D
DR	DRAIN	TELECOMS	TC-A TC-D
EC	ELEC INSPECTION COVER	TELECOMS STAT RECORD	TC-A TC-D
ELB	ELECTRIC BOX	EARTH ROD STRIP	ER-A ER-D
ER	EARTH ROD	EARTH ROD STAT RECORD	ER-A ER-D
EP	ELECTRICITY POLE	ELECTRIC	EL-A EL-D
FL	FINISHED FLOOR LEVEL	ELECTRIC STAT RECORD	EL-A EL-D
FH	FIRE HYDRANT	FIBRE-OPTICS	FO-A FO-D
G	GULLY	FIBRE-OPTICS STAT RECORD	FO-A FO-D
GLT	GROUND LIGHT	FUEL LINE	FL-A FL-D
GST	GAS TAP	FUEL LINE STAT RECORD	FL-A FL-D
GSV	GAS VALVE	GPR DETECTION LINE	GPR GPR
IC	INSPECTION COVER	MAINS GAS	GM-A GM-A
IL	INVERT LEVEL	MAINS GAS STAT RECORD	GM-A GM-A
KO	KERB OUTLET	MAINS WATER	WM-A WM-A
LP	LAMP POST	MAINS WATER STAT RECORD	WM-A WM-A
MH	MANHOLE	SEWER CW	CW-A CW-A
MKR	MARKER	SEWER CW STAT RECORD	CW-A CW-A
OP	OUTFALL PIPE	SEWER FW	FW-A FW-A
PN	PYLON	SEWER FW STAT RECORD	FW-A FW-A
PP	PETROL PUMP	SEWER SW	SW-A SW-A
RE	RODDING EYE	SEWER SW STAT RECORD	SW-A SW-A
RWP	RAINWATER PIPE	TRAFFIC SIGNAL CABLE	TS-A TS-A
SOF	SOFFIT LEVEL	TSC STAT RECORD	TS-A TS-A
SV	STOP VALVE	UNIDENTIFIED TRACE	UI-A UI-A
TCB	TELEPHONE CALL BOX	UNIDENTIFIED CABLE	UC-A UC-A
TL	TRAFFIC LIGHT	UNIDENTIFIED PIPE	UP-A UP-A
TLB	TRAFFIC LIGHT BOX	VEHICLE DETECTION CABLE	VD-A VD-A
TP	TELEGRAPH POLE	VDC STAT RECORD	VD-A VD-A
WM	WATER METER	SURVEY BOUNDARY	
WO	WATER OUTLET	LIMITED/IMPEDED SURVEY	
WST	WATER STOP TAP		
WSV	WATER STOP VALVE		
EOT	END OF TRACE		
OSA	OUT OF SURVEY AREA		
UTL	UNABLE TO LIFT		
UTS	UNABLE TO SONDE		
UTT	UNABLE TO TRACE		
S/L	SIGNAL LOSS		
BLK	BLOCKED		
NFH	NO FURTHER GPR CONTACTS		
BD	BACKDROP PIPE		
NVP	NO VISIBLE PIPE		
ToP	TOP OF PIPE		
	EOT SYMBOL		
	FITTING FROM RECORDS		

QUALITY LEVEL

A – Verification

B1 – Horizontal/Vertical location using multiple techniques

B2 – Horizontal/Vertical location using a single technique

B3 – Horizontal location using a single technique

B4 – Assumed route

C – Site Reconnaissance

D – Desktop utility records search

NOTES:

All levels relate to O.S (Newlyn) Datum, Established using network RTK. Survey plotted on a plane local grid, orientated to National Grid.

This Underground Utilities survey was conducted in compliance with the BSI PAS128:2014 standards.
Services linetypes display text indicating first an abbreviation of the services' function (eg. EL = Electric Cable) followed by the Quality Level to which that service was located (eg. B4 = Assumed route).

Quality Level descriptions shown in the above legend are for reference purposes only and are not intended as detailed descriptions.
For full information on Quality Levels, please consult the BSI PAS128:2014 standards document.

Lines annotated as GPR indicate a series of consistent subsurface anomalies located using the Ground Penetrating Radar and should be considered as Quality Level B2. The nature of these anomalies could not be determine by non-invasive means. GPR lines that were identifiable as a service are shown as their respective service.

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At SEP we use skilled and experienced staff, modern up to date techniques and top of the range electromagnetic and radar technology to locate and trace sub-surface utilities. However the performance of the equipment employed in non-invasive surveys can be adversely affected by factors outside the control of SEP. Therefore SEP cannot guarantee that all utilities present on site have been located. It is the responsibility of the Client to consult regional authority records and undertake trial digs where appropriate.

Where similar services run in close proximity it may be impossible to separately trace individual services as the trace signal can experience interference. In such cases, services will be shown as a single, annotated line. The displayed depth will refer to the shallowest detected utility.

Successful tracing of non-conductive materials may be limited. Drainage gulleys are dye tested where possible to prove connectivity but it is not always possible to introduce the sonde due to narrow pipe sizes and/or accumulated silt.

Depth information of underground services/features are generally accurate to within +/- 10% (i.e. a pipe at 2m deep may be accurate to +/-200mm) but this cannot be guaranteed. Depths shown usually refer to the top of the service. Gravity sewer and drain depths are usually to invert (base of drainage channel) unless otherwise stated.

Some above ground features may have been obscured at time of survey. It is not always possible to operate the Ground Penetrating Radar in areas including, but not limited to, dense vegetation, rubble, debris and/or rough/uneven ground.

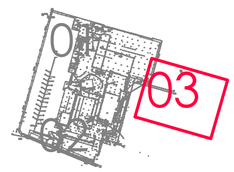
Existing record information that was made available to SEP by the Client or by the statutory utility provider should be regarded only as an indication and cannot be guaranteed.

Excavation in the vicinity of services shown should be carried out with due diligence (Ref. HSG47).

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PLAN GRID NORTH

File Name: S20758-U.dwg



SHEET LAYOUT

0 2m 4m 8m 12m 16m

SCALE BAR

REV	DATE	DESCRIPTION

SURVEY & ENGINEERING PROJECTS

Client
Morgan Sindall
Anchorage 2
Salford Quays
Manchester
M50 3YW

Project Title
CCTV Survey of Land at:
Hammerstone Road Depot
Gorton
Manchester
M18 8EQ

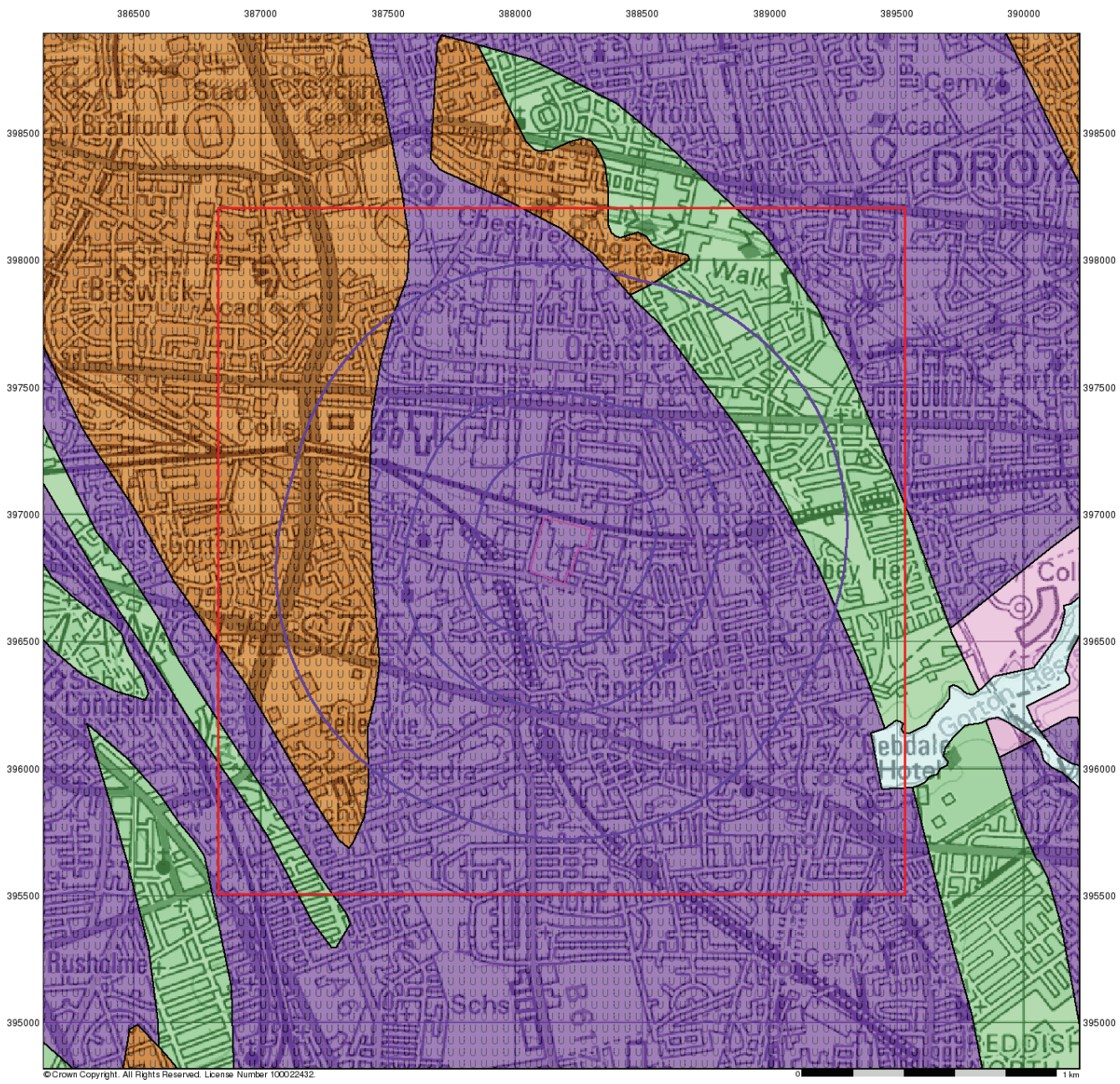
Surveyed	Drawn	Checked
SEP	J.Cherry	SEP

Scale	Date	Drawing Ref.	No.	Size	Rev
1:200	Sept 20	S20758-U	03	A2	--

Appendix D

BGS maps

Borehole records



curtins

Groundwater Vulnerability

General

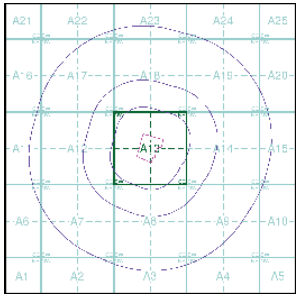
Specified Site | Specified Buffer(s) | Bearing Reference Point

Slice | Map ID

Agency and Hydrological

Geological Classes	Soil Classes
Major Aquifer (Highly Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Minor Aquifer (Variably Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Non Aquifer (Negligibly Permeable)	
Water or Sea	
Drift Deposit	

Site Sensitivity Context Map - Slice A

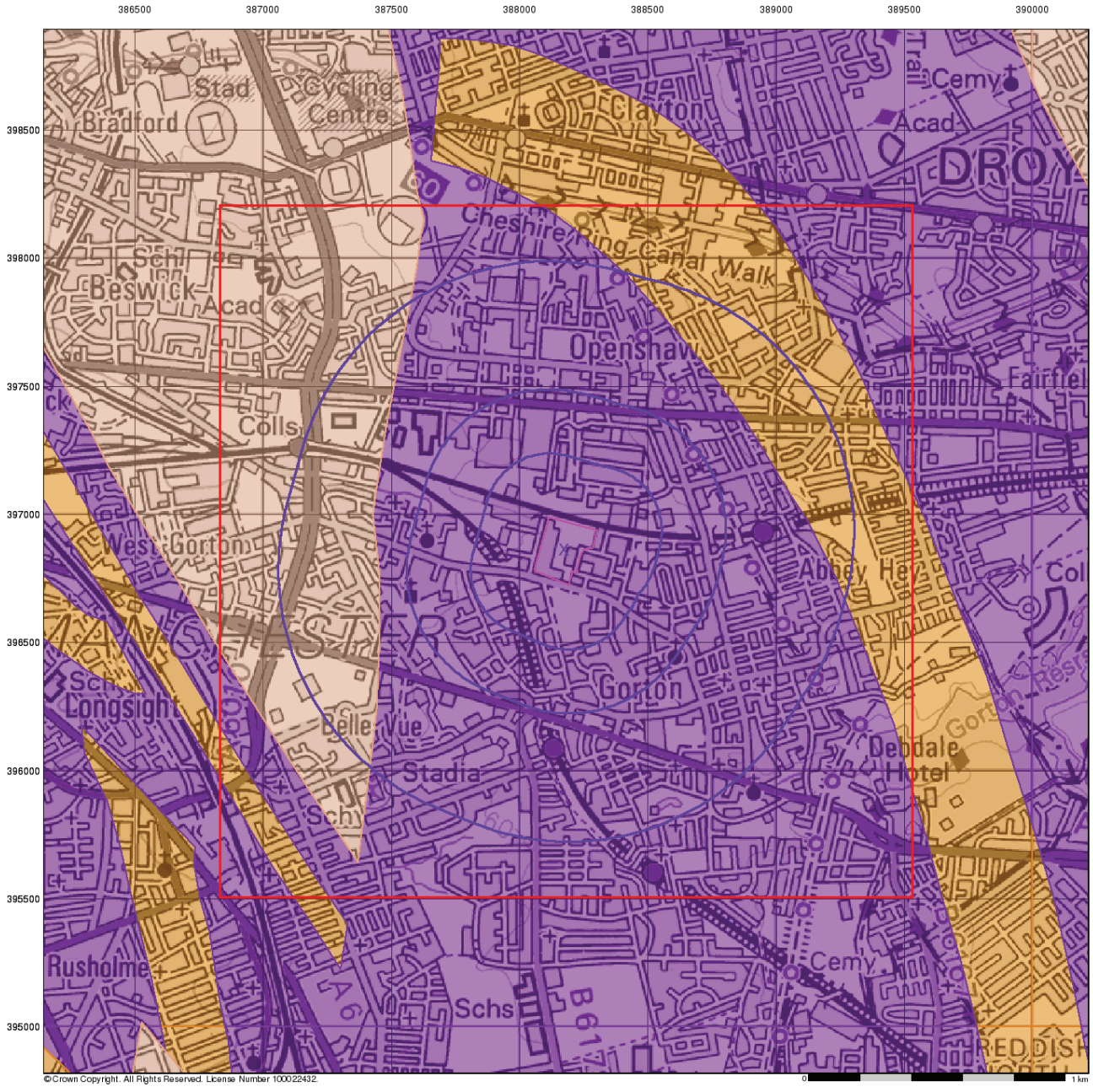


Order Details

Order Number:	174869711_1_1
Customer Ref:	P068065.000
National Grid Reference:	388170, 396860
Slice:	A
Site Area (Ha):	3.81
Search Buffer (m):	1000

Site Details

, Mobile Library Service Units, Hammerstone Road Depot, Hammerstone Road, Manchester, M18 8EQ



curtins

Bedrock Aquifer Designation

General

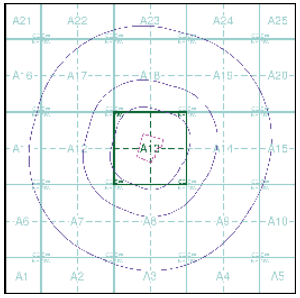
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	174869711_1_1
Customer Ref:	P068065.000
National Grid Reference:	388170, 396860
Slice:	A
Site Area (Ha):	3.81
Search Buffer (m):	1000

Site Details

, Mobile Library Service Units, Hammerstone Road Depot, Hammerstone Road, Manchester, M18 8EQ